

Issue Brief: An Analysis of Pennsylvania's Cyber Charter Schools November 2013

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Introduction

Pennsylvania's first cyber charter school opened in 1998, enrolling 44 full-time students. From this modest beginning, Pennsylvania's cyber charter sector has grown to 16 schools enrolling 35,000 students from all but one school district in the Commonwealth. Pennsylvania has one of the nation's most extensive cyber charter sectors, and six additional proposed schools are before the Department of Education (PDE) for review.

The recent growth in the sector coincides with increasing attention from state policymakers. As of this writing, there are at least 12 legislative proposals pending in the Pennsylvania General Assembly addressing cyber authorization, funding, or oversight.

To help situate cyber charter schools within a state context, Research for Action (RFA) examined the state's recently-issued School Performance Profile (SPP) scores for the 11 cyber charters for which complete data are available. RFA then compared these scores to all public schools statewide, including traditional public schools and brick-and-mortar charters. RFA's analysis is based on publicly-available data from PDE's School Performance Profile website.

Also, given the relationship between student mobility and academic achievement, ⁱ RFA examined enrollment into and out of five cyber charters for which data were available during the 2010-11 and 2011-12 school years. We also reviewed the demographics of the student populations in cyber charter schools as compared to traditional public schools and brick-and-mortar charters.

Our main findings for these analyses are as follows:

School Performance Profile

- For the 11 cyber charters with SPP scores, all scored among the lowest performing schools in the state. No cyber charter with SPP scores attained the state-level average School Performance Profile score.
- Of the students attending cyber charters with SPP scores, one-third attended one of the two highestscoring cyber charters, which were approximately nine and 13 points below the state average.
- Of all students attending cyber charters with SPP scores, a majority of students—54 percent—attend a single cyber charter school that scored 29 points below the state average.

¹ Under the state's *No Child Left Behind* waiver, the SPP replaces the Adequate Yearly Progress measure, and seeks to capture school performance on several indicators within three broad areas: academic achievement, academic growth, and progress towards closing the achievement gap.

Student Mobility

- The five cyber charter schools with enrollment data had higher average transfer-in and transfer-out rates than all brick and mortar charters with available data (87 schools).
- Initial enrollment, students' transfers-in and transfers-out increased from the 2010-11 school year to 2011-12 in all five schools with enrollment data.

Student Demographics

- The student body enrolled in Pennsylvania's cyber charters reflects the statewide demographic figures for all racial and ethnic groups.
- The 16 cyber charters enroll a higher proportion of economically disadvantaged students as compared to other public schools.

School Performance Profile: School Sample

Table 1 presents information regarding the sample of schools used in our analysis. In total, there are 3,001 public K-12 institutions for which data have been collected by PDE. However, due to a calculation error regarding Keystone Exams, Pennsylvania's new end-of-course tests, scores are not available for all schools. As a result, only 2,429 schools (81 percent) statewide, have an SPP score. Similarly, only 11 cyber charter schools (69 percent) statewide have an SPP score. The five cyber charters which had suppressed scores account for 52 percent of the statewide cyber charter enrollment.

School Performance Profile: Overview

In early October 2013, PDE released SPP scores for the majority of the state's K-12 public schools. According to the PDE <u>website</u>, SPP scores are intended to serve a variety of purposes including providing parents and the broader public with a tool to compare schools across the metrics listed below. Additionally, SPP scores will be factored into the state's new Educator Effectiveness System. Importantly, SPP scores are assigned at the **building** level; district-level measures are no longer a component of Pennsylvania's accountability plan.

A school's SPP score is based on performance in four weighted categories, detailed below. In addition, schools may earn up to seven points via "extra credit" for advanced achievement based upon performance on state and industry assessments as well as for students earning a score of 3 or higher on Advanced Placement exams.

Indicators	Description	Weight
I. Academic Achievement	Includes standardized assessment (PSSA or Keystone) performance, industry standards-based competency assessments, grade 3 reading proficiency, and SAT/ACT college-ready benchmarks.	40%
2. Academic Growth / PVAAS	Measures school's impact on academic progress of groups of students from year-to-year.	40%
3. Closing the Achievement Ga	p; two elements:	
All Students	All student scores are used to define how well a school is making progress toward proficiency of all students.	5%
 Historically Underperforming Students 	Historically Underperforming Students' 2 scores are used to define how much progress a school is making toward proficiency.	5%
4. Other Academic Indicators	Assesses factors that contribute to student achievement (e.g., graduation rate, promotion rate, attendance rate).	10%
Source: Pennsylvania Denartment (of Education - Pennsylvania School Performance Profile (link)	

² Students who have historically not demonstrated proficiency.

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Table 1. Descriptions of Schools in the Sample: Statewide and By School Type

	Total Sample	Schools with SPP Scores	Schools with SPP Scores Suppressed
All Pennsylvania Public Schools	3,001	2,429 (81%)	572 (19%)
Cyber Charters	16		5 (31%)
Traditional Public Schools	2,841	2305 (81%)	536 (19%)
Charters (Brick and Mortar Only)	144	113 (79%)	3 l (22%)

Source: Pennsylvania Department of Education-Pennsylvania School Performance Profile

Analysis of School Performance Profile Scores

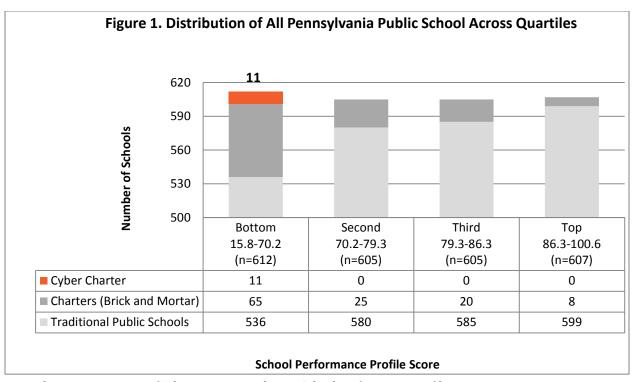
Table 2 displays the average, median, minimum, and maximum SPP score for all Pennsylvania and cyber charter schools for which data are available. Statewide, the average SPP score is 77.2, with a median of 79.3; these scores are 33 and 40 points higher than the average cyber charter scores, respectively. With a high score of 67.9, no cyber charter scored above the state average while the minimum cyber charter score was higher than the other two sectors.

Table 2. Average, Median, Minimum, and Maximum School Performance Profile Scores: Statewide and By School Type

	Average Score	Median Score	Minimum Score	Maximum Score
All Pennsylvania Public Schools	77.2	79.3	15.8	100.6
Cyber Charters	44.7	39.7	30.6	67.9
Traditional Public Schools	77.8	79.7	15.8	100.6
Charters (Brick and Mortar Only)	67.3	67.8	22.5	94.2

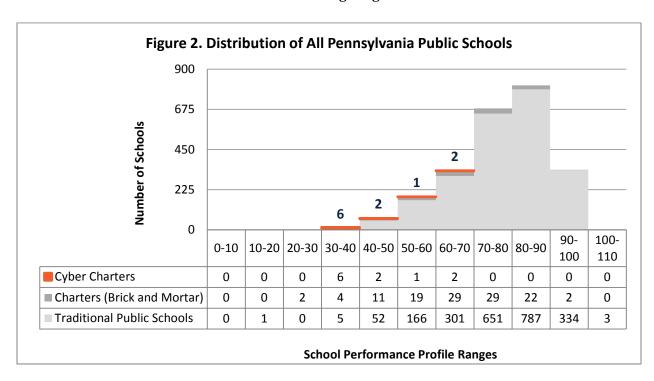
Source: Pennsylvania Department of Education- Pennsylvania School Performance Profile

The following figure presents the percentage of the state's cyber charter schools across four scoring ranges relative to the statewide distribution of scores (Figure 1). One hundred percent of the 11 cyber charters with SPP scores scored within the lowest quartile of public schools statewide, while 54 percent of brick and mortar charters with SPP scores and 23 percent of traditional public schools with SPP scores scored within this quartile.



 $Source: Pennsylvania\ Department\ of\ Education-\ Pennsylvania\ School\ Performance\ Profile$

Figure 2 shows a more detailed analysis to account for the variance among schools within the bottom quartile. Schools are distributed across eleven standardized scoring ranges.



Source: Pennsylvania Department of Education: Pennsylvania School Performance Profile
The data within each scoring range is mutually exclusive. For example, all scores within the "20-30" range are greater than 20 but less than or equal to 30. Schools in the "30-40" range are greater than 30 but less than or equal to 40.

Statewide, cyber charters represent 0.45 percent of schools for which SPP scores are available, yet fully one-third of the 18 lowest-scoring schools (SPP scores of 0-40). No cyber charters fall within the scoring ranges that contain the highest concentration of all public schools.

Table 3 shows each cyber charter's location, enrollment, and SPP scores for the 2012-13 school year.

Table 3. School Enrollment and Performance Profile Score: Pennsylvania Cyber Charter Schools

Cyber Charter School	Location	2012-13 Enrollment	Final SPP Score
State Average			77.2*
ACT Academy Cyber CS	Chester	89	30.6
2. Central PA Digital Learning Foundation CS	Philadelphia	114	31.7
3. Esperanza Cyber CS	Chester	141	32.7
4. ASPIRA Bilingual Cyber Charter School	Philadelphia	148	Not Available
5. Susq-Cyber CS	Columbia	155	Not Available
6. Solomon Charter School Inc.	Blair	195	36.9
7. Education Plus Academy Cyber CS	Philadelphia	220	39.0
8. PA Learners Online Regional Cyber CS	Philadelphia	318	45.0
9. Pennsylvania Distance Learning CS	Allegheny	358	54.7
10. 21st Century Cyber CS	Chester	754	Not Available
II. Achievement House CS	Allegheny	802	39.7
12. Pennsylvania Leadership Charter School	Chester	2,324	64.7
13. Pennsylvania Virtual CS	Montgomery	3,198	67.9
14. Commonwealth Connections Academy CS	Dauphin	6,667	Not Available
15. Agora Cyber CS	Philadelphia	9,175	48.4
16. Pennsylvania Cyber CS	Beaver	10,434	Not Available

Sources: Pennsylvania Department of Education- Pennsylvania School Performance Profile & Charter School Annual Reports and Enrollment Data

Among cyber schools with SPP scores, one-third of students were enrolled in the two highest-scoring cyber charters, while one in ten students attended the six lowest-scoring cyber charters (SPP score of 30-40). Agora, which reported the second-highest enrollment level among the state's cyber charters, had an SPP score of 48.4, nearly 29 points below the state average.

Pennsylvania's Cyber Charters: Enrollment and Demographics

The second element of our analysis examines enrollment trends for the state's cyber charters. We compare student mobility within the cyber charter sector to brick and mortar charters. Additionally, we compare the demographics of the cyber charters' student bodies to both traditional public schools and brick and mortar charters.

^{*}The state average reflects scores for 81 percent of all Pennsylvania public schools.

Pennsylvania's Cyber Charters: Student Mobility

In addition to academic performance, RFA sought to examine mobility rates among cyber charter students. Based on available data from five cyber charters' 2011 and 2012 annual reports, we looked at transfer-in and transfer-out rates over two school years (2010-11 and 2011-12); see Table 4, below. Both calculations reflect models employed by the Department of Elementary and Secondary Education in Massachusetts—one of the nation's highest-performing states based on the National Assessment of Educational Progress. iii The five schools were chosen based on the availability of data to calculate the transfer-in and transfer-out rates; together, these schools enroll more than half of Pennsylvania's cyber charter population and 31 percent of Pennsylvania's charter sector. While our analysis provides insight into student mobility in these schools, the data are not generalizable to all Pennsylvania Cyber Charters.

Table 4. Transfer-in and Transfer-out Rates for Five Pennsylvania Cyber Charters with available data

	Transfe	r-in Rate	Transfei	-out Rate
	2010-11	2011-12	2010-11	2011-12
Average	29.78%	31.33%	25.94%	27.05%
21st Century Cyber Charter	18.74%	12.57%	25.14%	41.46%
Agora	38.75%	41.72%	28.53%	25.91%
Commonwealth Connections Academy CS	30.01%	27.84%	23.39%	21.60%
Pennsylvania Leadership Charter School	0.00%	0.00%	28.02%	27.57%
SusQ-Cyber Charter School	52.59%	34.73%	55.96%	55.31%

Source: Pennsylvania Department of Education: Charter School Annual Reports and Enrollment Data

Student Mobility

In order to measure student mobility during the school year for these five cyber charters, we calculated the transfer-in rate and transfer-out rates using the following formulas.

$$\textbf{Transfer In Rate} = \frac{\textit{Number of students that enrolled after the start of the school year}}{\textit{Total number of students enrolled at any point during the school year}}$$

$$\label{eq:number of student that dropped, transferred, or withdrew} \textit{Transfer Out Rate} = \frac{\textit{after the start of the school year}}{\textit{Total number of students enrolled at any point during the school year}}$$

The overall transfer-in and transfer-out rates for these five schools increased from 2010-11 to 2011-12, although some individual schools experienced declines in transfer-in and/or transfer-out rates.

To put the cyber charters' mobility rates into perspective, we compared the rates for these five cyber charters to rates for 87 brick and mortar charters; again, the schools were selected based on the availability of data to measure student mobility. Table 5 compares the transfer-in and transfer-out rates for both charter groups for the 2011-12 school year.

^{*}Agora's initial enrollment figures are from September; the other four schools' initial enrollment is as of October 1.

Table 5. Transfer-In and Transfer-out Rates for Pennsylvania's Cyber and Brick and Mortar Charters: 2011-12 School Year

	Trans	fer-in Rate	Transfer-out Rate			
	Cyber Brick and Mortar		Cyber Brick and Mor		Cyber	Brick and Mortar
Average	31%	8%	27%	9%		
Median	28%	5%	26%	7%		
Minimum	0%	0%	22%	1%		
Maximum	42%	43%	55%	60%		

Cyber charters have both higher average and median rates of students transferring in and out during the school year as compared to brick and mortar charters. While minimum and maximum transfer-in rates for both groups are comparable, 93 percent of brick and mortar charters had *transfer-out* rates below 22 percent. In contrast, 22% was the minimum *transfer-out* rate among the cyber charters we reviewed.

To provide a more in-depth assessment of how enrollment changes on a month-by-month basis, we looked at enrollment data for Agora Cyber Charter School, the second-largest provider in Pennsylvania, and the largest school for which complete data are available. Table 6 shows the month-to-month changes in Agora's enrollment for the 2010-11 and 2011-12 school years.

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Other rationales me	entioned follow:			
Life Change	Different/Better Schooling Option	Academic Mismatch	Mismatch with Family Schedule	Moved Out Of State
Regulation	Prior To Engagement	No Show	Decease	Early Graduate
Non-Compliancy	Left Voluntarily	Dropped	Incarcerated	

Table 6. Agora Cyber Charter: Month-by-Month Enrollment Trends; 2010-11 and 2011-12 School Years.

2010-11	September	October	November	December	January	February	March	April	May
Total Enrollment	5,353	6,444	6,305	6,216	6,221	6,479	6,812	6,599	6,475
Students Who Withdrew	312	303	291	211	396	221	316	214	113
New Students Who Enrolled	1,403	164	202	216	654	554	103	90	
Transfer-in Rate	18%	3%	3%	3%	9%	8%	2%	1%	0%
Transfer-out Rate	4%	5%	4%	3%	6%	3%	5%	3%	2%
2011-12	September	October	November	December	January	February	March	April	May
Total Enrollment	7,343	7,880	8,238	8,696	8,867	9,375	9,918	9,489	9,204
Number of Students Who Withdrew	632	351	277	369	424	596	443	292	211
New Students Who Enrolled	1,169	709	735	540	932	1,139	14	7	11
Transfer-in Rate	16%	9%	9%	6%	10%	11%	0%	0%	0%

Source: Pennsylvania Department of Education Charter School Annual Reports and Enrollment Data; **Total Enrollment**- Enrollment levels reported at the first of each month.

Withdrawal and New Student Figures- Students that withdrew/enrolled each month.

Transfer-out Rate- Students who withdrew each month divided by the month's total enroll (starting enrollment plus new students).

Transfer-In Rate- New students enrolled in the prior month divided by current month's total enrollment (starting enrollment plus new students).

Both of Agora's school years saw over 1,000 new students enrolling during September, the first full month of the school year; the next biggest influx of students occurred in January, the start of the second half of the school year. For 2010-11, the monthly transfer-in rate ranged from zero to 18 percent. In the following year, the range was comparable: 0 to 16 percent. Across both school years, the highest transfer-out rate was seven percent.

Pennsylvania's Cyber Charters: Demographics

Pennsylvania's 16 cyber charters educate approximately two percent of the state's K-12 public school population.³ Table 7 shows the demographic breakdown of cyber charter enrollment as compared to enrollment in traditional public schools and brick and mortar charters for the 2012-13 school year.

Table 7. Demographics for All Pennsylvania Public Schools: 2012-13 School Year

	Total	Cyber Charters	Brick and Mortar	Traditional Public
All Pennsylvania Public Schools	1,580,653	34,988 (2%)	83,361 (5%)	1,462,304 (93%)
Asian	58,212	382	2,569	55,261
	(3%)	(1%)	(3%)	(4%)
Black or African American	268,116	5,987	45,947	216,182
	(15%)	(17%)	(55%)	(15%)
Hispanic	158,641	2,196	13,695	142,750
	(9%)	(6%)	(16%)	(10%)
Multi-Racial	27,950	1,339	1,719	24,892
	(2%)	(4%)	(2)	(2%)
Other	1,913	126	38	1,749
	(0%)	(0%)	(0%)	(0%)
White	1,065,811	24,958	19,393	1,021,470
	(70%)	(71%)	(23%)	(70%)

Source: Pennsylvania Department of Education; Percentages are of total enrollment for each schooling type. Other: Aggregate of American Indian/Alaskan Native and Native Hawaiian or other Pacific Islander (not Hispanic)

The majority (70 percent) of students enrolling in Pennsylvania's public schools are white. Brick and mortar charters were the only school type of the three enrolling a majority of minority students. Cyber charter enrollment is more representative of Pennsylvania's public school enrollment statewide.

Table 8 displays student characteristics among the state's 16 cyber charter as compared to statewide levels.4

³ This does not include students who are enrolled in a Comprehensive CTC, Occupational CTC, or State Juvenile Correctional Institute.

⁴ The glossary provides definitions for how the Pennsylvania Department of Education accounted for each student group.

Table 8. Student Characteristics for Pennsylvania Public Schools: Cyber Charters; 2012-13 School Year

	Economically Disadvantaged	English Language Learners	Special Education
Cyber Charters ^{iv}	17,623	119	5,653
	(50.7%)	(0.3%)	(16.3%)
Pennsylvania*	686,641°	44,729 ^{vi}	295,080vii
	(39.4%)	(2.7%)	(16.5%)

Source: Pennsylvania: National Center for Education Statistics- Digest of Education Statistics;

Source: Cyber Charters: Pennsylvania Department of Education- Pennsylvania School Performance Profile

As compared to 2010-11 statewide figures, cyber charters enroll a higher percentage of economically disadvantaged students and a lower percentage of English language learners. Cyber charters enroll a similar percentage of special education students as compared to all Pennsylvania public schools.

Future Considerations

This initial analysis is intended to provide straightforward, descriptive analyses of Pennsylvania's cyber charter schools and how they compare to both traditional public schools and brick-and-mortar charters. Key findings include:

- The performance of the cyber charter sector lags behind both traditional public schools and brick and mortar charters in SPP scores.
- Mobility rates of cyber charters are significantly higher than for brick-and-mortar charters in almost all cases.
- In general, the student body within the state's cyber charters reflects the state's demographic makeup. However, cyber charters enroll a higher proportion of economically disadvantaged students.

Given rising enrollments in cyber charters, the substantial funding levels associated with these schools, and the mix of state policy proposals being considered, additional research in this area would serve a vital role. This should begin with a second round of analysis for all 16 cyber charters once SPP scores are available.

^{*}These figures represent 2010-11 enrollment levels, the most recent year of state-level data, for all regular school districts.

Glossary

The Pennsylvania Department of Education defines the following terms as:

Economically Disadvantaged

Percent of students who are considered economically disadvantaged in the District based on October Student Snapshot enrollment Equals the number of students identified as economically disadvantaged in the District divided by total District enrollment It is at the discretion of the District to determine if a student is economically disadvantaged. Poverty data sources such as Temporary Assistance for Needy Families cases, census poor, Medicaid, children living in institutions that are neglected or delinquent, those supported in foster homes or free/reduced price lunch eligibility may be used.

English Language Learner

Percent of students enrolled in English as a Second Language program in the District based on October Student Snapshot enrollment. Equals the number of students identified as English Language Learners in the District divided by total District enrollment English Language Learner (ELL): A limited English proficient student defined as one who: 1) was not born in the United States or whose native language is other than English and comes from an environment where a language other than English is dominant; or is a Native American or Alaska Native who is a native resident of the outlying areas and comes from an environment where a language other than English has had a significant impact on such an individual's level of English language proficiency; or is migratory and whose native language is other than English and comes from an environment where a language other than English is dominant; and 2) has sufficient difficulty speaking, reading, writing or understanding the English language and whose difficulties may deny such individual the opportunity to learn successfully in classrooms where the language of instruction is English or to participate fully in an English speaking society.

Special Education

This number is based on PIMS October Student Snapshot enrollment, CTCs, AND PennData December collection (other settings). It represents total percent enrollment in the district, for Special Education reporting purposes, and includes all special education students enrolled in the district regardless of the location receiving services. This number represents the PIMS October Snapshot enrollment, plus Comprehensive CTC students mapped back to their district of residence (provided by PIMS), plus any special education students receiving services in other locations outside of a public school building. This total includes school age students only. Special Education: A student receiving specially designed instruction consistent with an Individualized Education Program (IEP) under the Individuals with Disabilities Education Act (IDEA - Part B). This does not include students with a Gifted Individualized Education Program (GIEP). An IEP is a written annual educational plan that is developed, reviewed, and revised by an IEP team in accordance with the regulations governing special education programs in Pennsylvania. The IEP specifies the individual educational needs of the child who is eligible for special education and what education and related services are necessary to meet those needs. Source: PA School Code, Chapter 14

Appendix A

Table 6. Cyber Charter Enrollment Trends for the 2011 and 2012 School Years

School	Grades Served	School Year	Initially Enrolled (October)	Additional Enrollment	Dropped, Transferred, or Withdrew	Final Enrollment	Transfer- In Rate	Transfer- out Rate
Totals		2011	13,334	5,654	4,925	14,063	29.78%	25.94%
•		2012	16,705	7,620	6,581	17,744	31.33%	27.05%
21st Century Cyber Charter	6-12	2011	724	167	224	667	18.74%	25.14%
	6-12	2012	793	114	376	531	12.57%	41.46%
Agora	K-12	2011	5,353*	3,386	2,264	6,475	38.75%	28.53%
3	K-12	2012	7,343*	5,256	3,595	9,004	41.72%	25.91%
Commonwealth Connections	K-12	2011	4,426	1,898	1,479	4,845	30.01%	23.39%
Academy CS	K-12	2012	5,551	2,142	1,662	6,031	27.84%	21.60%
Pennsylvania Leadership	K-12	2011	2,648	0	742	1,906	0.00%	28.02%
Charter School	K-12	2012	2,815	0	776	2,039	0.00%	27.57%
SusQ-Cyber Charter School	9-12	2011	183	203	216	170	52.59%	55.96%
V 1,511 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	9-12	2012	203	108	172	139	34.73%	55.31%

Source: Pennsylvania Department of Education: Charter School Annual Reports and Enrollment Data

^{*}Agora's initial enrollment figures are from September.

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